Western Electric Company, Inc.,
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Hawthorne.

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METHOD OF OPERATION

Signal Circuit - Selector Time Alarm - Without Aisle Pilots - With Secondary Signals at Floor Alarm and Main Alarm Boards - Arranged for Power Cable Terminal Strip - Panel Machine Switching System.

DEVELOPMENT

1. PURPOSE OF CIRCUIT

This circuit is used with selector circuits to give an alarm when the calling subscriber fails to replace the receiver on the switchhook within a predetermined period of time or when the selector remains in a selecting position for an abnormal period of time.

2. WORKING LIMITS

None.

OPERATION.

3. PRINCIPAL FUNCTIONS

The principal function of this circuit is to close an alarm circuit whenever a selector remains in certain positions for an abnormal length of time.

4. CONNECTING CIRCUITS

This circuit connects with any standard selector.

DETAILED DESCRIPTION

5. ALARM DUE TO SELECTOR SEQUENCE SWITCH DELAY

When the sequence switch of a selector advances to a position in which the selector is allowed to remain only for a predetermined period of time, ground in the selector circuit operates the (PS-1) relay ("X" wiring) or the (PS-2) relay (Y wiring) to battery on the PU brush and normal terminal. The (PS-1) or (PS-2) relay operated, locks to ground in the selector circuit and operates the (STP) relay. The (STP) relay operated starts the 200-E selector stepping under control of the interrupter. When the 200-E selector reaches a terminal connected to a B lead, the (S) relay operates from battery on the PU brush to ground on the (PS-1) or (PS-2) relay. The (S) relay operated, (a) locks to ground on the (PS-1) or (PS-2) relay, (b) lights the 2-G lamp, (c) operates the (A) relay, (d) releases the (STP) relay. The (A) relay operated lights the floor board aisle pilot and the main alarm board lamp.

The (STP) relay released stops the 200-E selector on the next normal terminal. Normal terminals are blank on the ON arc and have "A" leads on the PU arc.

6. RETURNING TO NORMAL WHEN SELECTOR ADVANCES

When the selector sequence switch advances, ground is removed from the selector lead releasing the (PS-1) or (PS-2) relay. The (PS-1) or (PS-2) relay released, releases the (S) relay in turn releasing the (A) relay and extinguishing the lighted lamps.

7. RETURNING TO NORMAL WHEN SELECTOR ADVANCES WITHIN TIME LIMIT

Should the selector sequence switch advance before the 200-E selector has advanced sufficiently to operate the (S) relay, the (PS-1) or (PS-2) relay releases preventing the (S) relay from operating and releasing the (STP) relay. The STP relay released steps the 200-E selector to the next normal terminal through the ON brush and strapped terminals under control of the interrupter.

8. EXTINGUISHING LAMPS WITH 92-A KEY

With "X" wiring should the selector sequence switch fail to advance within the required period of time, the lighted lamps may be extinguished by the operation of the 92-A key thus operating the (SW) relay. The (SW) relay operated, operates the (B) relay and releases the (PS-1) relay. The (PS-1) relay released extinguishes the lighted lamps as in paragraph 7. The (B) relay operated holds the (SW) relay operated thus holding the (B) relay operated until the selector sequence switch advances. When the selector sequence switch advances the (B) relay releases releasing the (SW) relay thus restoring the circuit to normal.

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July 7, 1923.
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